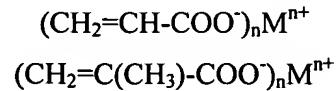
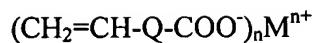


## In the Claims

1. (currently amended) A method for the radiation grafting of a compound  
5 that can be grafted onto a fluoropolymer, so as to prevent destabilization of the fluoropolymer, comprising the following steps:
  - a) melt blending the fluoropolymer is ~~melt-blended~~ with a graftable compound;
  - b) forming the blend obtained at a) is ~~formed~~ into films, sheets,  
10 granules or powder;
  - c) subjecting the products from step b) are ~~subjected~~ to photon ( $\gamma$ ) or electron ( $\beta$ ) irradiation with a dose of between 0.5 and 15 Mrad; and
  - d) optionally, subjecting the products from step c) are ~~subjected~~ to a washing and/or a degassing operation,  
15 and in which wherein a stabilizer is blended into the fluoropolymer either before or after the irradiation step.
2. (original) The method as claimed in claim 1, in which the stabilizer is blended into the fluoropolymer before the irradiation.  
20
3. (currently amended) The method as claimed in claim 2, in which the stabilizer is an antioxidant, a graftable metal salt or ~~else~~ a combination of the two.
4. (original) The method as claimed in claim 1, in which the stabilizer is an antioxidant blended into the fluoropolymer after the irradiation.  
25
5. (original) The method as claimed in claim 4, in which a graftable metal salt is blended into the fluoropolymer before the irradiation.
- 30 6. (currently amended) The method as claimed in ~~one of claims 1 to 5~~ claim 1, in which the stabilizer is a graftable metal salt represented by one of the following formulae:





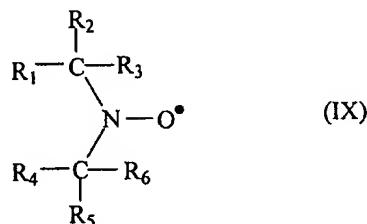
where Q denotes an optionally substituted, linear or cyclic, aliphatic or optionally substituted aromatic group and M denotes a metal cation of valence n, which may be chosen from  $\text{Ca}^{2+}$ ,  $\text{Na}^+$  and  $\text{Zn}^{2+}$ .

5

7. (original) The method as claimed in claim 6, in which the graftable metal salt is zinc undecylenate.

8. (currently amended) The method as claimed in ~~either of claims 4 and 5~~  
10 ~~claim 4~~, in which the content of graftable metal salt after step a) is 0.1 to 10%,  
preferably 0.1 to 5%, of graftable metal salt per 99.9 to 90%, preferably 99.9 to  
95%, of fluoropolymer.

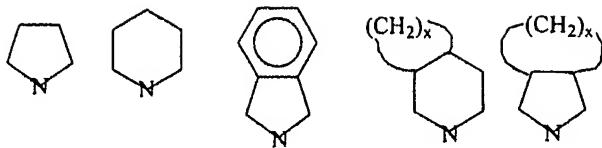
9. (currently amended) The method as claimed in ~~claims 3 to 8~~ claim 3, in  
15 which the antioxidant is an alkylated monophenol, an alkylated hydroquinone, an  
alkylidene bisphenol, a benzyl compound, an acylaminophenol, a phosphite, a  
phosphonite or a nitroxide of general formula:



20 in which  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ ,  $\text{R}_4$ ,  $\text{R}_5$  and  $\text{R}_6$  denote:

-  $\text{C}_1\text{-C}_{20}$ , preferably  $\text{C}_1\text{-C}_{10}$ , linear or branched alkyl groups, such as ~~methyl, ethyl, propyl, butyl, isopropyl, isobutyl, *tert*-butyl, neopentyl~~, whether substituted or not;

-  $\text{C}_6\text{-C}_{30}$  aryl groups, whether substituted or not, such as benzyl or  $\text{C}_1\text{-C}_{30}$  saturated cyclic aryl(phenyl) groups,  
25 and in which the  $\text{R}_1$  and  $\text{R}_4$  groups may form part of an  $\text{R}_1\text{-CNC-R}_4$  cyclic structure optionally substituted, possibly chosen from:



in which x denotes an integer between 1 and 12.

10. (currently amended) The method as claimed in claim 9, in which the  
 5 antioxidant is 2,6-di-*tert*-butyl-4-methylphenol, 2,6-di-*tert*-butylphenol (IRGANOX® 140), 2-*tert*-butyl-4,6-dimethylphenol, 2,6-di-*tert*-butyl-4-ethylphenol, 2,6-di-*tert*-butyl-4-n-butylphenol, 2,6-di-*tert*-butyl-4-isobutylphenol, 2,6-di-cyclopentyl-4-methylphenol, 2-( $\beta$ -methylcyclohexyl)-4,6-dimethylphenol, 2,6-di-octadecyl-4-methylphenol, 2,4,6-tri-cyclohexylphenol, 2,6-di-*tert*-butyl-4-methoxymethylphenol, o-*tert*-butylphenol, 2,6-dinonyl-4-methylphenol, 2,4-dimethyl-6-(1'-methylundecyl)phenol, 2,4-dimethyl-6-(1'-methylheptadecyl)phenol, tetrakis(3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)propionyloxymethyl)methane (IRGANOX® 1010), thiodiethylene bis(3,5-di-*tert*-butyl-4-hydroxyhydrocinnamate) (IRGANOX® 1035), or  
 10 15 octadecyl-3,5-di-*tert*-butyl-4-hydroxyhydrocinnamate (IRGANOX® 1076).

11. (currently amended) The method as claimed in one of claims 3 to 10 claim  
 3, in which the antioxidant content is 0.001 to 2%, ~~preferably 0.001 to 1%, per~~  
 99.999 to 98%, ~~preferably 99.999 to 99%,~~ of fluoropolymer.  
 20

12. (currently amended) The method as claimed in ~~any one of the preceding~~  
 claims claim 1, in which the fluoropolymer is PVDF.

13. (original) The method as claimed in claim 12, in which the PVDF contains  
 25 at least 85% VDF by weight.

14. (currently amended) A structure comprising at least one layer of the  
 fluoropolymer modified by radiation grafting prepared as ~~claimed in the method of~~  
~~any one of the preceding claims by the method of~~ calim 1, and at least one layer of  
 30 another material.

15. (currently amended) The structure of claim 14 comprising Bottles bottles,

tanks, containers, pipes, hoses, receptacles, films and packaging produced with a structure of claim 14.

16. (currently amended) The structure of claim 14 comprising A structure comprising an inner layer in contact with the a fluid to be transported or stored, consisting of the fluoropolymer modified by radiation grafting produced as claimed in any one of claims 1 to 13 and, directly attached thereto, a polyolefin or polyamide outer layer.
- 10 17. (currently amended) The structure as claimed in claim 16, in which further comprising a PVDF layer is placed beside the layer of fluoropolymer modified by radiation grafting.
- 15 18. (currently amended) The structure as claimed in claim 16 or 17 claim 16, in which a functionalized polyolefin polymer layer is placed between the layer of fluoropolymer modified by radiation grafting and the polyolefin or polyamide layer, said functionalized polyolefin polymer having functional groups capable of reacting with the functional groups grafted onto the fluoropolymer.
- 20 19. (currently amended) The structure of claim 14 comprising A structure comprising a layer consisting of the fluoropolymer modified by radiation grafting produced as claimed in any one of claims 1 to 13 and placed between two polyolefin layers.
- 25 20. (original) The structure as claimed in claim 19, in which a functionalized polyolefin layer is placed between the layer of fluoropolymer modified by radiation grafting and one or both of the polyolefin layers, said functionalized polyolefin having functional groups capable of reacting with the functional groups grafted onto the fluoropolymer.
- 30 21. (cancelled)
22. (cancelled)

23. (cancelled)

24. (currently amended) The structure as claimed in ~~any one of claims 16 to 23~~ ~~claim 16~~, in which the inner layer in contact with the fluid to be transported or  
5 stored may contain carbon black, carbon nanotubes or any other additive capable of making the structure conducting in order to prevent the build-up of static electricity.

25. (currently amended) A ~~The~~ structure as claimed in claim 14 comprising an  
10 outer layer consisting of the fluoropolymer modified by radiation grafting ~~produced as claimed in any one of claims 1 to 13~~ and, directly attached thereto, a layer of a substrate.

26. (original) The structure as claimed in claim 25, in which a PVDF layer is  
15 placed beside the layer of fluoropolymer modified by radiation grafting.

27. (currently amended) The structure as claimed in ~~claim 25 or 26~~ claim 25, in which a functionalized polymer layer is placed between the layer of fluoropolymer modified by radiation grafting and the substrate layer, said functionalized polymer  
20 having functional groups capable of reacting with the functional groups grafted onto the fluoropolymer, this functionalized fluoropolymer being compatible with the substrate.

28. (currently amended) A fluoropolymer onto which a graftable compound is  
25 radiation-grafted, said fluoropolymer being stabilized by one or more antioxidants or a graftable metal salt.

29. (currently amended) A ~~The~~ fluoropolymer as claimed in claim 28 wherein  
30 ~~onto which a graftable compound is radiation-grafted~~, said fluoropolymer being stabilized by a graftable metal salt and by one or more antioxidants.

30. (cancelled) .

31. (cancelled)

32. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 31~~ ~~claim 28~~, in which the content of graftable compound grafted, that is to say linked to the fluoropolymer via a covalent bond, is 0.1 to 5%, preferably 0.1 to 5 2.5%, per 99.9 to 95.0%, preferably 99.9 to 97.5%, of fluoropolymer.

33. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 32~~ ~~claim 28~~, in which the content of grafted metal salt, that is to say that links to the fluoropolymer via a covalent bond, is 0.1 to 5%, preferably 0.1 to 2.5%, per 10 99.9 to 95.0%, preferably 99.9 to 97.5%, of fluoropolymer.

34. (currently amended) The fluoropolymer as claimed in ~~one of claims 29 to 33~~ ~~claim 28~~, in which the graftable metal salt is zinc undecylenate, sodium undecylenate, or calcium undecylenate.

15

35. (cancelled)

36. (cancelled)

20 37. (currently amended) The fluoropolymer as claimed in ~~one of claims 28 to 36~~ ~~claim 28~~, in which the fluoropolymer is PVDF.

38. (original) The fluoropolymer as claimed in claim 37, in which the PVDF contains at least 85% PDF by weight.

25